1985 PRODUCTS CATALOG

INTRODUCING... TWO SPECTRUM ANALYZERS!

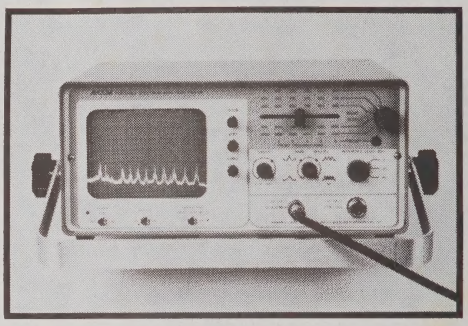
MEMBER OF SPACE

NEW SPECTRUM ANALYZERS

PSA-35 PORTABLE SPECTRUM ANALYZER

AVCOM's PSA-35 Portable Spectrum Analyzer offers frequency coverages of 10 to 1500 MHz and 3.7 to 4.2 GHz for checking signal strength, inband attenuations, terrestrial interference and filter alignment, faulty connectors and LNA's, feedhorn isolation, and cable loss at all commonly used frequencies in the TVRO industry, including 12 GHz downconverters.

The PSA-35 Spectrum Analyzer features a built-in DC block with +18 VDC for powering LNA's and BDC's with the flip of a switch, calibrated signal amplitude display, and rechargeable battery. The PSA-35 is extremely portable and easy to use in field test situations. It is essential to quickly check BDC systems for signal balance and component performance. Simplicity of operation and extreme versatility make the PSA-35 the most valuable test instrument you can buy for installing and servicing TVRO systems. Other applications for this versatile analyzer include classroom use, research and development, locating hidden eavesdropping transmitters and some MATV measurements.

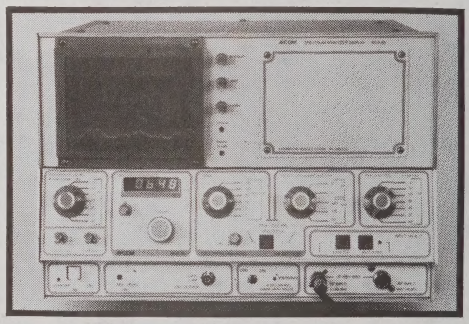


PSA-35

MSA-85 SPECTRUM ANALYZER

AVCOM's MSA-85 Spectrum Analyzer offers a wide band coverage of 4 to 1500 MHz and 3.6 to 5.1 GHz, including satellite receiver IF frequencies, block downconverter outputs (including 12 GHz satellite systems), and actual satellite frequencies.

The MSA-85 features separate inputs for low and high frequency bands to save you time changing connectors when working with signals in both bands. LNA's and BDC's can be powered with the flip of a switch utilizing internal DC power inserters on both inputs. Automatically coupled Span and Resolution Bandwidth controls simplify operation. (This automatic feature can be overridden with the push of a button to give independently selectable Span and Resolution bandwidths.) The MSA-85 is essential to quickly check BDC systems for signal balance and component performance. Other applications include classroom, research and development, production, "debugging," SCPC analysis, and general communication service.



MSA-85

NEW PRODUCTS

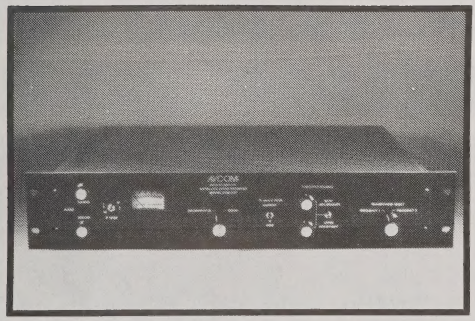
SPM-3

SPM-3 STEREO PROCESSOR

AVCOM's SPM-3 Stereo Processor is an economical and high performance stereo demodulator system that will decode the stereo signals from satellite delivered programming.

The SPM-3 Stereo Processor features selectable audio IF bandwidth (for those "special" narrow band subcarriers), instant monaural/stereo switch, tunable audio demodulators covering all subcarrier frequencies, and standard outputs for easy connection to any stereo amplifier.

Also featured on the SPM-3 Stereo Processor are LED indicators for "power on," reception of MPX stereo signal and selection of L+R and L–R tunable demodulators.



COM-23T

COM-23T INTERNATIONAL SATELLITE RECEIVER

AVCOM's COM-23T Satellite Receiver is designed for dedicated channel reception applications. The COM-23T and RDC-20/RDC-21 remote downconverters form an economical, high performance satellite receiving system for cable, SMATV, radio stations, and other dedicated applications.

The highly stable COM-23T Satellite Receiver features Threshold Peaking and Dual IF controls on the front panel for demanding and specialized International Satellite Reception requirements. The latest in microwave oscillator technology allows the innovative downconverters used with the COM-23T to maintain high stability over temperature extremes. Tunable audio and rack mounting result in a versatile receiver for numerous commercial applications. Many options are available including internal downconverter, clamper disable, and remote video polarity control.

AVCOM IS KNOWN FOR ITS HIGH STANDARD OF PERFORMANCE, RELIABILITY AND VALUE IN A FULL RANGE OF COMMUNICATIONS EQUIPMENT TO MEET YOUR EVERY NEED. TAKE A LOOK AT WHAT WE CAN OFFER YOU.

INTRODUCING A NEW LINE OF SPECTRUM ANALYZERS

AVCOM introduces a new line of Spectrum Analyzers designed for the satellite communications industry. AVCOM's Spectrum Analyzers are useful on the bench in production and repair situations, and in the field for installations and site surveys. AVCOM's Spectrum Analyzers display signals coming from LNA's and BDC's to rapidly determine signal strength, inband attenuations, terrestrial interference and filter alignment, faulty connectors and LNA's, feedhorn isolation, and lossy cables. Essential to quickly check BDC systems for signal balance and component performance.

STANDARD FEATURES OF AVCOM SATELLITE RECEIVERS

SIGNAL STRENGTH METER — AVCOM receivers are equipped with a high performance signal strength meter which allows antenna peaking to 1/10 dB resolution. A jack is located on the rear panel of each receiver for connecting an external meter for use at the antenna site. Applications of the signal strength meter include precise positioning of the satellite antenna, optimum positioning of the feedhorn at the focal point, and accurate comparisons of antennas and LNA's.

SCAN-TUNE — The scan-tune feature automatically sweeps the 3.7 to 4.2 GHz satellite band for automatic signal detection. This capability is very useful for quickly finding satellites when aligning your antenna.

WIDE AND NARROW AUDIO IF FILTER — Another unique feature of AVCOM receivers is the wide and narrow audio IF bandwidth switching capability. Wide IF bandwidth is for standard audio transmissions. The narrow bandwidth setting allows clear reception of the SPECIAL audio channels on certain transponders. This setting also improves the audio reception from some international satellites. The tunable audio board can be wired for 600 ohm balanced output. The tuning range is 4 to 8 MHz.

WIRELESS REMOTE OPTION

Many of AVCOM's Satellite Receivers have the capability of wireless remote control when interfaced with the PROSAT 230+, Tracker IV Plus, or Tracker IV Super Plus.

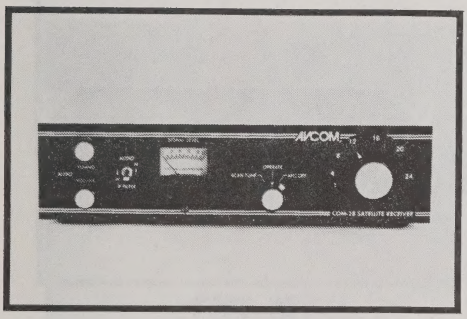
The Big Question: Which AVCOM?
Check with us. Different needs require different receivers. So let us know what you need, then we can recommend the AVCOM that's best for you. AVCOM will make custom modifications on equipment you order to give you maximum performance and to allow for special applications.

AVCOM ACCESSORIES

AVCOM has a complete parts and accessories warehouse to meet all your TVRO accessory requirements, including: ferrite isolators, power dividers, DC blocks, cable, connectors, coaxial relays, broad band amplifiers, line amplifiers, high frequency switches, coax seal, and isolated power dividers.

COM-2A

COM-2A — AVCOM's COM-2A Satellite Receiver offers you high performance and reliability at a relatively low cost. Attractive cabinet and front panel styling of this compact model will complement any home decor. It is ideally suited for low-cost installations, and also offers the utlimate in convenience. Standard features of the COM-2A include tunable audio with wide and narrow IF filters, scan-tune, sensitive signal strength meter, remote downconverter, unclamped video output jack for decoders, and crystal controlled modulator. The AVCOM COM-2A can give you the convenience of wireless remote control when interfaced with the PROSAT 230+, Tracker IV Plus, or Tracker IV Super Plus. Other options include Polarotor control circuits and remote video inversion switch.



COM-2B

COM-2B — AVCOM's COM-2B Satellite Receiver is styled along the lines of the famous COM-3. All operating controls are located on the front panel and the circuitry is identical to that of the COM-2A. Standard features include tunable audio with wide and narrow IF switch, internal crystal controlled modulator, scan-tune, sensitive signal strength meter, and unclamped video output jack for decoders. The AVCOM COM-2B can give you the convenience of remote control when interfaced with the PROSAT 230+, Tracker IV Plus, or Tracker IV Super Plus. Other options include Polarotor control and COM-2A remote control.

COM-3

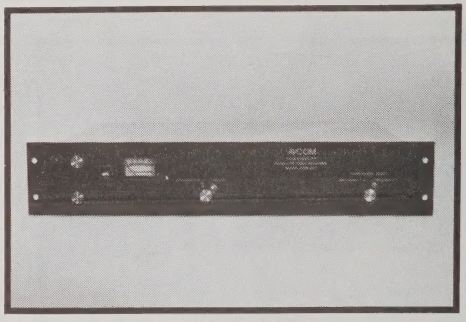
COM 3 — AVCOM's COM-3 Satellite Receiver features 24-channel detented tuning and comprehensive controls located on the front panel. Standard features include APS-24 (automatic polarity switching), crystal controlled modulator, unclamped video output for decoders, tunable audio (4 to 8 MHz) with wide and narrow IF bandwidth, sensitive signal strength meter, excellent threshold sensitivity, scan-tune circuitry, and internal DC power block. Options include wireless remote control with the PROSAT 230+, Tracker IV Plus, or Tracker IV Super Plus interfaces. The COM-3 can also be adjusted to receive International type transmissions with dual IF filters and Threshold Peaking.

RECEIVERS

COM-3R — AVCOM's COM-3R Satellite Receiver offers the same standard features as the COM-3 model with the added convenience of a comprehensive remote control unit for ease of operation. Standard features include APS-24 (automatic polarization switching), crystal controlled modulator, unclamped video output for decoders, tunable audio (4 to 8 MHz) with wide and narrow IF bandwidth, sensitive signal strength meter, 24-position switch selectable tuning, excellent threshold sensitivity, switchable video polarity (remote switching optional), scan-tune circuitry, internal DC power block, handsome hand-etched front panel and attractive styling. The COM-3R series of satellite receivers offers the ultimate combination of video quality, threshold performance and reliability. Numerous options and configurations make AVCOM's COM-3 or COM-3R the receiver of choice for the most demanding and unusual applications. Interfacing with the PROSAT 230+, Tracker IV Plus, or Tracker IV Super Plus gives the COM-3R wireless remote control capability. Special options such as dual IF filters and Threshold Peaking make them ideally suited for receiving International type satellite signals.

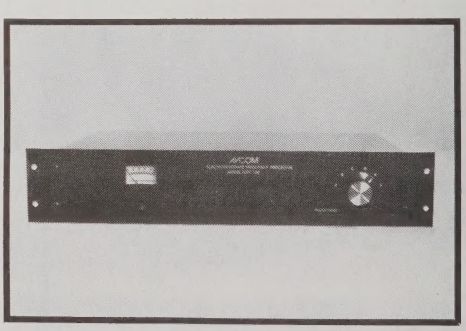
COM-3R

COM-20T — AVCOM's COM-20T high stability Satellite Receiver is the answer to your need for a highly stable, low cost, and reliable receiver for cable, private cable, radio stations, TV stations, BIZNET, and other dedicated applications. The COM-20T can be factory or field adjusted to a particular transponder and will remain on frequency. The COM-20T is normally supplied with a remote downconverter and tunable audio. Optional configurations include fixed-tuned audio, internal downconverter, and downconverter switching for multi-channel capability. Styling matches AVCOM's popular series of rack mount receivers.



COM-20T

SCPC-100 — AVCOM's SCPC-100 (Single Channel Per Carrier) offers a versatile approach to receiving specific frequencies of single channel per carrier transmissions. Multiple frequencies can be selected with a single control. The SCPC-100 system can solve the difficult problem of receiving audio which is transmitted separately from the video by international type satellites. Radio stations can use the SCPC-100 for receiving Motor Racing Network, RKO, Mutual Radio, and National Public Radio program feeds. National Bureau of Standards time signals can also be received. Many international satellite reception problems can be solved with the SCPC-100 audio receiver system. The SCPC-100 downconverter may be remoted at the antenna or optionally installed in the receiver mainframe.



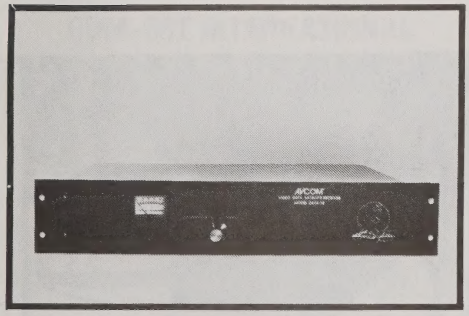
SCPC-100

COM-11

COM-11 — AVCOM's COM-11, an economical semicommercial Satellite Receiver, features rack mounting, remote single conversion downconverter, scan-tune, signal strength meter and tunable audio with wide and narrow IF bandwidth switch. Recessed, single control channel selector is available to prevent unauthorized tuning. Includes unclamped video jack for decoders.

COM-12

COM-12 — AVCOM's COM-12, an economical semicommercial Satellite Receiver, features rack mounting, remote single conversion downconverter, scan-tune, signal strength meter, and tunable audio with wide and narrow IF bandwidth switch. Standard features of the COM-12 include detented 24-position channel selector with automatic polarization control output. Unclamped video jack for decoders is included. Internal downconverter, optional.



DATA-18

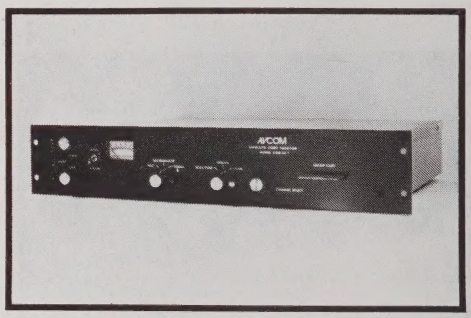
DATA-18 — AVCOM's DATA-18 Satellite Receiver has been designed to receive Reuters and other video formatted data transmissions. The DATA-18 receiver features high stability without drift, low cost, and low error rate when used with a proper LNA and antenna. The DATA-18 is normally furnished with a remote downconverter for ease of installation. An internal downconverter as well as other special modifications can be supplied.

AVCOM BLOCK DOWNCONVERTER SYSTEM
For Cost Effective Multi-Channel Installations

COM-66(T) — AVCOM's COM-66(T), a block downconversion system, offers commercial quality with double conversion and high quality stability. The flexible downconverter allows use of any degree and brand LNA. Standard features include automatic polarization control output, unclamped video output jack for decoders, compatibility with Scientific Atlanta's 6650 system, no isolators needed, rack mount standard and available with tunable audio with wide and narrow IF filters (specify "T" suffix) or standard 6.2 and 6.8 MHz subcarriers. Use with the BDC-60 block downconverter. Optional features allow reception of International satellites.

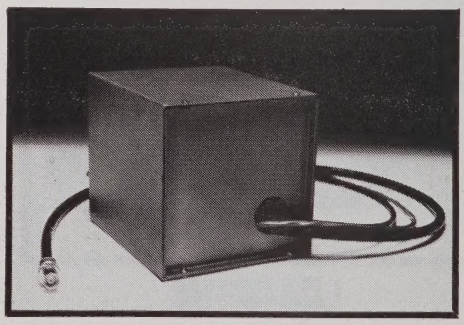
COM-66(T)

COM-65(T) — AVCOM's COM-65(T) semi-agile Satellite Receiver is equipped with a unique group card channel selector. The block downconverter system is commercial quality with double conversion and high stability. The COM-65(T) is ideal for cost-effective multi-channel installations. Rack mount is standard. Other features include unclamped video output jack for decoders, compatibility with SA's 6650 system, no isolators needed, and available with tunable audio with wide and narrow IF filters (specify "T" suffix) or standard 6.2 and 6.8 MHz subcarriers.



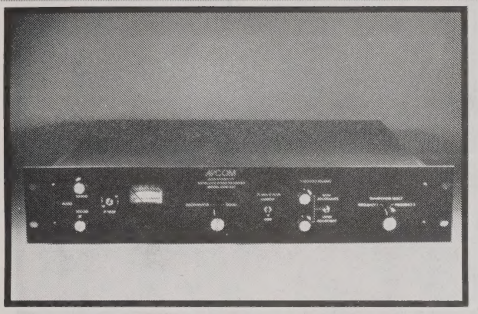
COM-65(T)

BDC-60 — AVCOM's BDC-60 Block Downconverter is used with the COM-65 and COM-66 Satellite Receivers. The BDC-60 converts the 3.7 to 4.2 GHz signal from any low noise amplifier to a 270 to 770 MHz block of frequencies. A DC power block is built into the unit. The BDC-60 can be used to replace more expensive LNC's from other manufacturers. Any brand and noise temperature LNA can be used with the BDC-60 for low cost and easy maintenance.



BDC-60

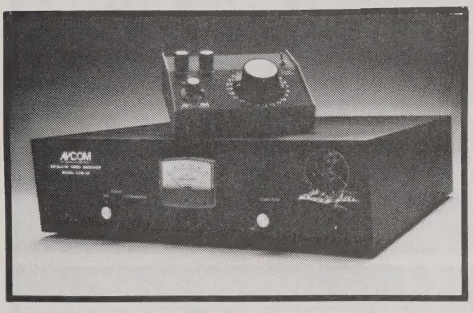
INTERNATIONAL RECEIVERS



COM-23T INTERNATIONAL

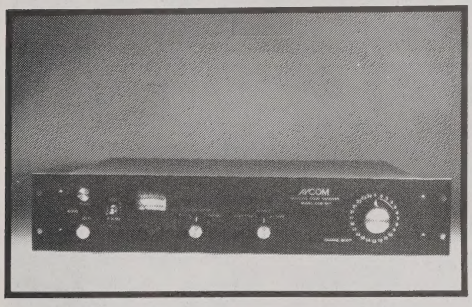
COM-23T INTERNATIONAL — AVCOM's COM-23T Satellite Receiver is designed for dedicated channel reception applications. The COM-23T and RDC-20/RDC-21 remote downconverters form an economical, high performance satellite receiving system for cable, SMATV, radio stations, and other dedicated use applications.

The highly stable COM-23T Satellite Receiver features Threshold Peaking and Dual IF controls on the front panel for demanding and specialized International Satellite Reception requirements. The latest in microwave oscillator technology allows the innovative downconverters used with the COM-23T to maintain high stability over temperature extremes. Tunable audio and rack mounting result in a versatile receiver for numerous commercial applications. Many options are available including internal downconverter, clamper disable, and remote video polarity control.



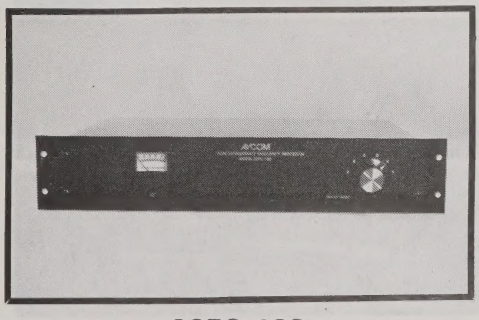
COM-3R INTERNATIONAL

COM-3R INTERNATIONAL — AVCOM's COM-3R International Satellite Receiver offers the ultimate threshold performance and reliability for demanding and specialized International satellite reception requirements. Special features including Threshold Peaking and electronically switched Full and Half transponder IF filters are included for reception of weak Intelsat type transmissions as well as standard U.S. and Canadian domestic satellite signals. The Threshold Peaking adjustments dramatically optimize the video quality for transmissions with low carrier to noise ratios. A high performance tunable audio demodulator with wide and narrow audio IF filter bandwidths is included. The narrow audio IF filter bandwidth is included. The narrow audio IF filter significantly improves audio quality when receiving weak signals.



COM-66T INTERNATIONAL

COM-66T INTERNATIONAL — AVCOM's COM-66T Satellite Video Receiver with International options offers performance and capabilities similar to those of the COM-3R International Receiver. The COM-66T is a commercial grade dual conversion receiver to be used with the BDC-60 Block Downconverter. The system is highly stable and is ideal for critical full or half transponder reception applications where long-term frequency stability is required. Threshold Peaking and dual IF filters are standard with the COM-66T International. 19" rack mounting is standard.



SCPC-100

SCPC-100 — AVCOM's SCPC-100 can be used for downconverting specific SCPC (Single Channel Per Carrier) audio and data transmissions from International type satellites. The difficult problem of receiving special audio feeds that are transmitted separately from the video signal can be solved with the SCPC-100. The SCPC-100 downconverter may be remoted at the antenna or optionally installed in the receiver mainframe.

CABLES

AVCOM's ANSWER TO YOUR TVRO FEEDLINE REQUIREMENTS

A. **SUPER CABLE SC-1** — Everything you need in one jacket!

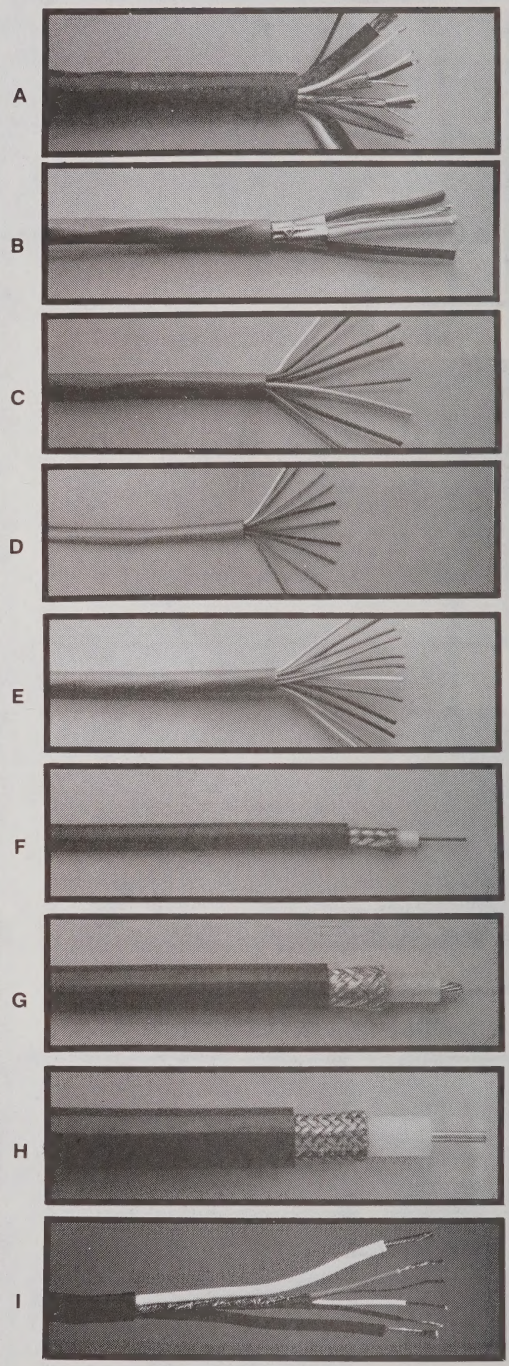
2-14GA — Suggest use with DC Motor Drive
3-22GA — Shielded with Aluminum Mylar Foil and Drain Wire. Suggest use with Motor Drive Sensor.
2-20GA — Shielded with Aluminum Mylar Foil and Drain Wire. Suggest use with Polarotor
4-20GA — Suggest use with Downconverter
1-RG-59/U — Foam 95% Copper Braided Shield. Suggest use with Downconverter.

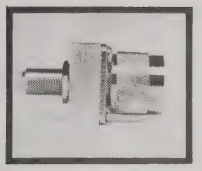
FEATURES OF SUPER CABLE SC-1 INCLUDE:
Overall clear mylar vapor barrier, direct burial PVC jacket, soil resistant, sunlight resistant, flame resistant (UL), flexibility maintained at low temperatures, easy to work with, tinned copper for easy soldering, twisted pair on motor wire to reduce electrical interference.

B. 3 Conductor 18 ga. shielded grey vinyl jacket control cable. Used to power and tune downconverter and LNA.
C. 8 Conductor 22 ga. grey vinyl jacket control cable. Used for remote control extension.
D. 10 Conductor 22 ga. shielded beige vinyl control cable.
E. 12 Conductor 22 ga. shielded beige vinyl control cable. Remote control extension.
F. RG-59/U 75 ohm coax. Foam insulation, black vinyl. Copperbraid, copper center conductor. To connect downconverter signal to receiver.
G. RG-214 Double shielded 50 ohm coax. Medium loss at 4 GHz. Primarily used for pigtails and short feed lines.
H. RG-217 50 ohm double shielded lower loss coax. Used between LNA and downconverter for medium length cable runs.

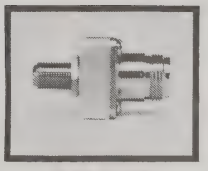
I. ACTUATOR WIRE
2-14 GA — Suggest use with DC Motor Drive
4-22 GA — Shielded with Aluminum Mylar Foil. Suggest use with Motor Drive Sensor.

FEATURES OF ACTUATOR WIRE INCLUDE:
Direct burial PVC jacket, overall clear mylar vapor barrier, soil resistant, sunlight resistant, flame resistant (UL), flexibility maintained at low temperatures, easy to work with, twisted pair on motor wire to reduce electrical interference.





ADP-1



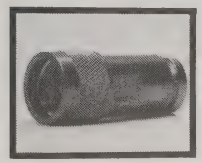
ADP-2

New and Hard-to-Find Adapters

ADP-1 — Adapter has type N-Male on one end and a type F-Female on the other. Mates type N-Female connector to F-Male connector.

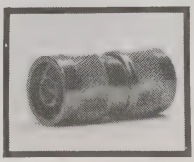
ADP-2 — Adapter has type N-Female on one end and a type F-Female on the other. Mates type N-Male connector to F-Male connector.

COAXIAL CONNECTORS



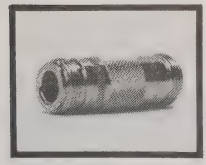
UG-21 B/U

UG-21 B/U — Type N-Male. 50 ohm impedance. Teflon insulation. For RG-214 cable.



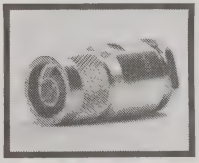
UG-57 B/U

UG-57 B/U — Type N-Male to Male straight adapter. Inside thread. Teflon insulation. 50 ohm impedance.



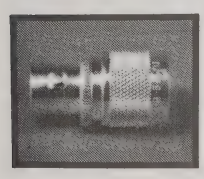
UG-29 B/U

UG-29 B/U — Type N-Female to Female straight adapter. Outside thread. Teflon insulation.



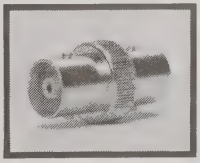
UG-204 C/U

UG-204 C/U — Type N-Male. 50 ohm impedance. Teflon insulation. For RG-217 cable.



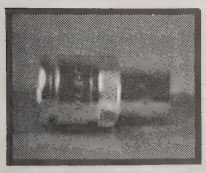
UG-572/U

UG-572/U — Type C-Female. Teflon insulation. 50 ohm impedance. "Quick connect." For RG-214 cable.



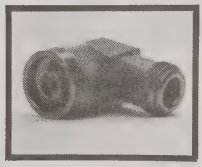
UG-643/U

UG-643/U — Type C-Female to Female straight adapter. Teflon insulation. 50 ohm impedance.



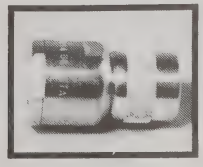
UG-564/U Adapter

UG-564 Adapter — Type N plug to type C jack. Teflon insulation. 50 ohm impedance.



UG-27 C/U Right Angle

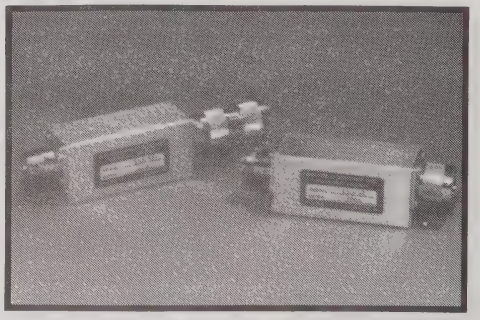
UG-27 C/U Right Angle — Type N. Teflon insulation. 50 ohm impedance.



UG-707 A/U

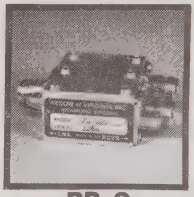
UG-707 A/U — Type C-Male. Straight plug. 50 ohm impedance. For RG-217 cable.

FERRITE ISOLATOR MODEL ISO-61 — 60 dB of isolation effectively prevents interaction between single conversion receivers. SPECIFICATIONS: 3.7-4.2 GHz bandwidth; frequency response — ± .25dB; insertion loss — .9 dB typ.; isolation — greater than 60 dB typ. Choice of two connector configurations: Type N-Female-Female, or Female-Male.

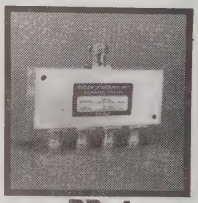


ISO-61

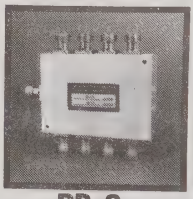
TWO-, FOUR- and EIGHT-WAY POWER DIVIDERS WITH AND WITHOUT DC POWER BLOCK — AVCOM's two-, four-, and eight-way Power Dividers allow one LNA to feed multiple receiver installations. SPECIFICATIONS: frequency — 3.7-4.2 GHz; isolation — 25 dB typ; VSWR — 1.20:1; insertion loss — .25 dB typ.; impedance — 50 ohms.



PD-2

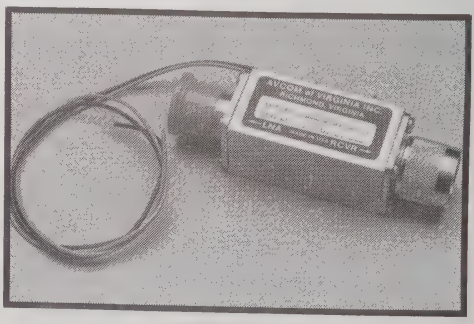


PD-4

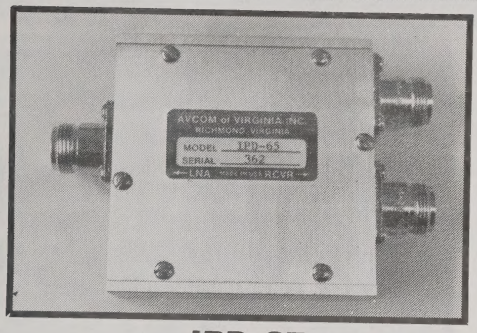


PD-8

DC POWER BLOCK MODEL DCP-1 — SPECIFICATIONS: connectors — Type N-Female (Male-Male barrel included) input voltage — 100 VDC max.; input current — 250 ma. max.; insertion loss — .35 dB typ.



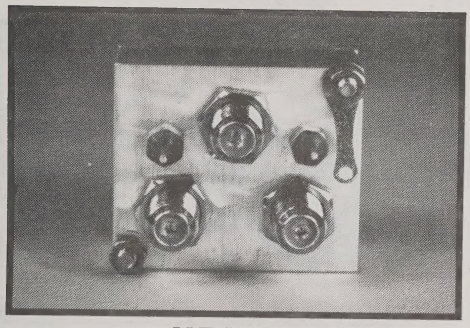
DCP-1



IPD-65

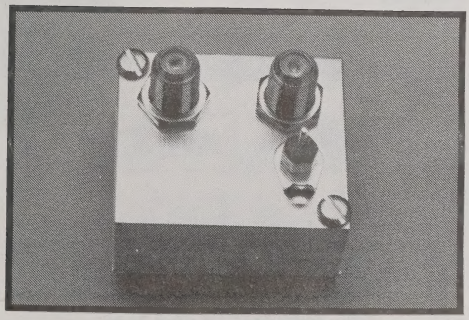
ISOLATED POWER DIVIDER MODEL IPD-65 — AVCOM's Isolated Power Divider Model IPD-65 is the economical solution to the problem of using two satellite receivers with one LNA. The IPD-65 2-way power divider with ferrite isolators offers more than 65 dB of isolation between output ports, extreme reliability, and excellent 4 GHz signal performance. A feature unique to the IPD-65 is an LED indicator that allows verification of power to the LNA. Automatic feedline power switching and DC block circuits are included to simplify down-converter hookup.

Inherent reliability, quality materials, and careful design make the IPD-65 the component of choice for combining two satellite receivers.



HFS-3

HIGH FREQUENCY SWITCH MODEL HFS-3 — SOLID STATE RF SWITCH SPDT CONFIGURATION — Frequency — 40-800 MHz +10 to +15 volt control signal to switch desired port. F connectors standard.



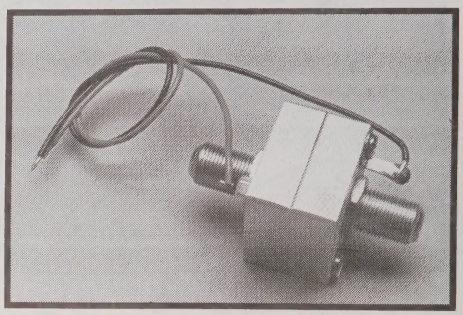
BBA-2

BROAD BAND AMPLIFIER MODEL BBA-2 — AVCOM's BBA-2 Broad Band Amplifier provides 18 dB of signal gain from 40 to 770 MHz. Use as line amplifier for BDC-60. DC blocked, standard. Other configurations available.

SPECIFICATIONS: Gain — 18 dB typ.: frequency response — 40 to 770 MHz; power — +15 VDC.

ACCESSORIES

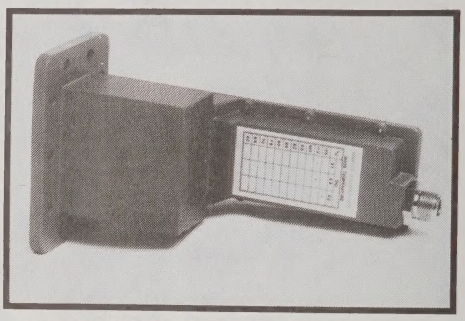
DC POWERBLOCK MODEL DCP-66 — AVCOM's DCP-66 is a 25 to 1500 MHz DC Powerblock for inserting or removing voltage on IF coax feedlines. Typical applications include: Inserting power on RG-59 coax to power a block downconverter; providing a test point to monitor a tuning voltage carried on a downconverter coax; and using an existing coaxial cable to carry power for some special purpose such as relay switching or polarization control. SPECIFICATIONS: Insertion loss — less than 1 dB; flatness — ±.5dB; frequency response — 10 MHz to 1.5 GHz; connectors — Type F.



DCP-66

LOW NOISE AMPLIFIERS (LNA's)

AVCOM can supply the following LNA's for use with AVCOM receivers: Uniden, MSE, California Amplifier, Avantek, and Amplica. These manufacturers offer LNA's with noise temperatures from 70° to 120° K.



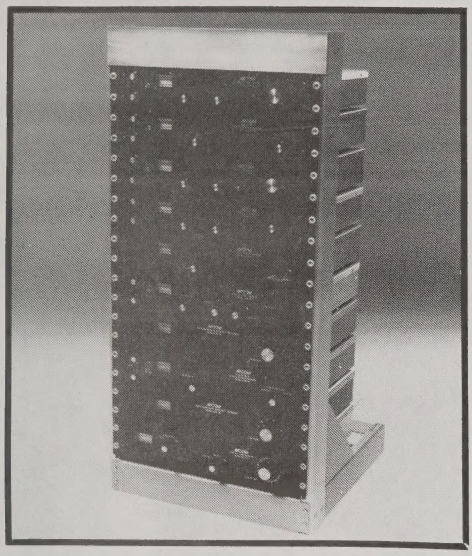
LOW NOISE AMPLIFIERS

RF MODULATOR

AVCOM's model MOD-21 modulator is crystal controlled on VHF channels 3 and 4. This is a high quality, low cost modulator with RCA phono connectors for audio and video and a type "F" for RF out. A separate plug-in power supply is included and the unit can be ordered without casing for installation inside satellite receivers.

RF MODULATOR

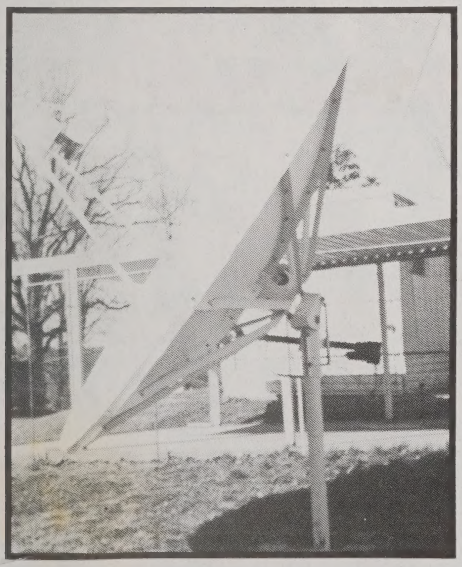
AVRACK



AVRACK

AVRACK — AVCOM's Avrack provides over 36 inches of rack space for receivers, modulators, power supplies, and other satellite equipment needs. It features durable construction with replaceable threaded inserts. For maximum ease of cabling and equipment maintenance, the Avrack is open in the rear. The unit ships easily and is quickly assembled.

ADM ANTENNAS



ADM ANTENNAS

ADM ANTENNAS — ADM's parabolic dish antennas are constructed from high quality 5022-H32 aluminum alloy (.090" thickness) and dip primed with a zinc chromate base. A sturdy steel polar mount along with a low center of gravity, make the dishes extremely wind-resistant. Once installed, the ADM dish antennas are virtually maintenance-free, as they are inherently rigid and will not deform with age.

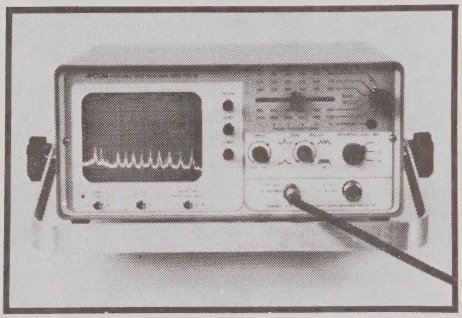
The following sizes are available from AVCOM:

9' aluminum
10' aluminum
11' aluminum
13' aluminum
16' aluminum
20' aluminum

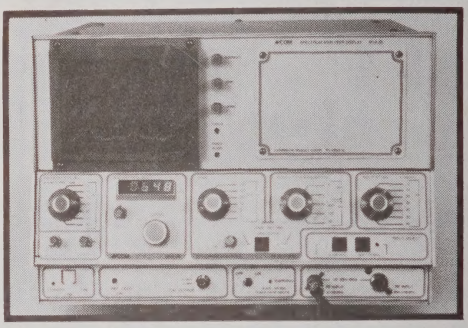
The basic ADM antennas are equipped with Polarotor II and LNA bracket. Optional accessories are remote control antenna drive, Chaparral Polarotor I, dual feed, or single feed. The tripod mounts and dishes 11' and larger use a 52" stroke actuator. The 9' and 10' dishes with pole mounts use 18" stroke actuators.

IMPORTANT USES OF AVCOM SPECTRUM ANALYZERS

1. TVRO Installations. AVCOM Spectrum Analyzers display signals coming from LNA's and BDC's to rapidly determine signal strength, inband attenuations, TI, bad connectors and LNA's, poor feedhorn isolation, and lossy cables. Essential to quickly check BDC systems for signal balance and component performance.
2. Identifying Single Channel Per Carrier (SCPC) and other special format signals. Great for snooping.
3. Sweeping offices and homes for electronic eavesdropping transmitters. A potential secondary source of revenue for the already high tech TVRO business.
4. Servicing radio, TV and other electronic equipment.
5. Classroom education. Until now, Spectrum Analyzers were too expensive for many technical schools.
6. Research and Development. Spectrum Analyzers are the eyes and ears of an engineer working with radio frequency circuits.
7. Production. Several AVCOM Spectrum Analyzers can be purchased for the same amount spent for traditional units. Features may not be as extensive, but the MSA-85 can perform 90% of AVCOM production functions, compared to the most expensive units AVCOM has purchased.



PSA-35



MSA-85

For more information on AVCOM's PSA-35 and MSA-85 Spectrum Analyzers, see page 2.

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